

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-4, 6, 10-17 and 19-22 are pending, with claims 1, 6 and 15 amended, and claims 7-9 and 18 cancelled without prejudice or disclaimer, by the present amendment. Claims 1 and 15 are independent.

In the Official Action, claims 1-4, 6-11 and 13-20 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hanamura (U.S. Patent Pub. No. 2001/0033619); claims 12 and 21-22 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Hanamura and Official Notice.

Claims 1, 6 and 15 are amended to recite features related to those recited in previously pending claim 8, and to more clearly describe and distinctly claim Applicant's invention. Support for this amendment is found in Applicant's originally filed specification.¹ No new matter is added.

In view of Applicant's amendment, the rejection of claims 1, 6 and 15 is moot. The following comments are directed to the rejection of now-cancelled claim 8.

Briefly recapitulating, amended claim 1 is directed to

A method for transcoding an audio/video (A/V) stream, the method comprising:

dividing a compressed digital A/V stream into audio and video data;
transcoding the divided video data;

¹ Specification, page 8, lines 12-24.

synchronizing the divided audio data with the transcoded video data by matching Presentation Time Stamps (PTSs) of the audio and video data; and

packetizing the synchronized audio and video data into a digital A/V stream,

wherein the step of matching includes assigning a new PTS value to a packet of the audio data by assigning a PTS value for the divided audio data based on a PTS value for the transcoded video data.

Independent claim 15 recites, *inter alia*, a synchronizer configured to synchronize the divided audio data with the transcoded video data by matching Presentation Time Stamps (PTSs) of the audio and video data by assigning a PTS value for the divided audio data based on a PTS value for the transcoded video data.

Hanamura describes a device configured to synchronize audio and video bit streams between input and output MPEG-2 transport streams on the basis of synchronous information element contained in the input MPEG-2 transport streams. The device of Hanamura is configured to establish a rate control method for controlling output bit rate of video bit streams in the variable bit rate.

Fig. 1 of Hanamura describes a rate converter 600 that includes a MPEG-2 transport stream demultiplexer 610, a MPEG-2 transport stream multiplexer 620, a MPEG-2 video transcoder 640, and a system controller 650. The MPEG-2 TS demultiplexer 610 demultiplex an inputted MPEG-2 transport streams into a video TS (transport stream), an audio TS, and a system information TS. The MPEG-2 video transcoder 640 transcodes the input video TS, and outputs a video TS having a number of bits less than that of the inputted video TS.

Rate converter 700 in Fig. 2 of Hanamura is a schematic block diagram of a rate converter configured to synchronize the output video bit streams with the input video bit streams

on the basis of PTS and DTS contained in the input MPEG-2 transport streams. Rate converter 700 synchronizes the output video bit streams with the input video bit streams by: (a) decoding the video PES (Packetized Elementary Stream) into the video ES (Elementary Stream), the corresponding PTS, the corresponding DTS (Decoding Time Stamp) and other information; and (b) temporally storing the PTS (Presentation Time Stamp) and the DTS.

Rate converter 700 also generates the output video PES from the transcoded video ES, the corresponding PTS, the corresponding DTS, and the other information element so that the PTSs and the DTSs in the input video elementary streams of the video bit streams contained in the input MPEG-2 transport streams are matched with those in the corresponding video elementary streams of the output video bit streams contained in the output MPEG-2 transport streams as well as the PTSs and the DTSs in the audio frames of the audio bit streams contained in the input MPEG-2 transport streams are matched with those in the corresponding audio frames of the audio bit streams contained in the output MPEG-2 transport streams.

Cited paragraph [0325] of Hanamura describes that the PTS (i), DTS (i) and PTS_DTS_flag (i) inputted from the video PES packet decoder 242 are attached to the PES header of the corresponding picture i as the synchronization information elements PTS, DTS, and PTS_DTS_flag so as to ensure that the bit streams which have been transcoded and thus compressed will be synchronized with the bit streams which have not been transcoded nor compressed. However, this paragraph does not describe “assigning a new PTS value to a packet of the audio data by assigning a PTS value for the divided audio data based on a PTS value for the transcoded video data.”

Paragraphs [0438]-[0439] of Hanamura describe the difference between last PTS and PCR_current_audio is compared with the difference between the passing time of the audio TS packet in the input MPEG-2 transport streams and the passing time of the audio TS packet in the output MPEG-2 transport streams in accordance with the equation as follows: PCRcurrent_audio - last PTS < audio_th (equation (60)), where audio_th is the difference between the passing time of the audio TS packet in the input MPEG-2 transport streams and the passing time of the audio TS packet in the output MPEG-2 transport streams and is computed as follows: 25 audio_th = {[((TSB in/TSB out) - 1) x 188 x 8]/TSB in} x 27000000 (equation (61)).

However, Hanamura does not disclose or suggest Applicant's claimed feature of *"assigning a new PTS value to a packet of the audio data by assigning a PTS value for the divided audio data based on a PTS value for the transcoded video data."*

MPEP § 2131 notes that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also MPEP § 2131.02. “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because Hanamura does not disclose or suggest all of the features recited in claims 1 and 15, Hanamura does not anticipate the invention recited in claims 1 and 15, and all claims depending therefrom.

Conclusion

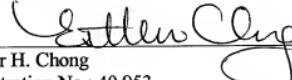
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael E. Monaco, Reg. No. 52,041, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

By


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